Critical Thinking Questions - Chapter 3

1.)

Legal Identifier Names:

- int finalAns;
- int _kilos;
- char operator;
- double price;
-

Illegal Identifier Names:

- int 3sum; - cannot start with a digit
- double my-variable; - cannot contain a hyphen
- char #num; - cannot start with #
- char class; - reserved word cannot be used

2.)

```
1  package CRT;
2  public class CRTwork {
3          public static void main(String[] args)
4          {
5
6              int numBeads;
7
8              numBeads = 5;
9
10             int numbeads = 5;
11         }
12 }
13
```

3.)

A. yourNumber = 13

B. yourNumber = 16

4.)

a) int
b) double
c) int
d) double
e) boolean
f) char

5.)

a) A primitive data type helps specify the shape and size of different variable values. They are used for data manipulation and cant be subdivided into smaller data groups/types. There are 8 primitive data types which consist of boolean, char, byte, int, short, long, float, and double. An abstract data type is one in which there is data and there are operations being performed on that data. Common examples of abstract data types include Lists, Stacks, and Sets.
b) A class represents an overlooking/broader template to create objects. Objects are tangible instances and work according to the structure defined by its class. Ex. Vehicle would be a class; car, truck, and bike would be the objects defined by the class.